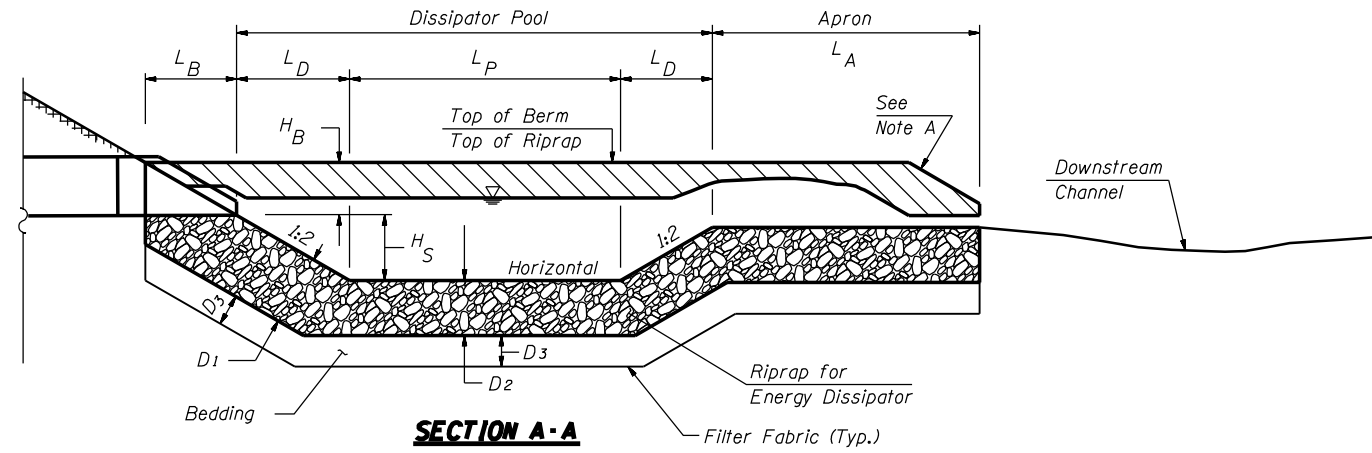
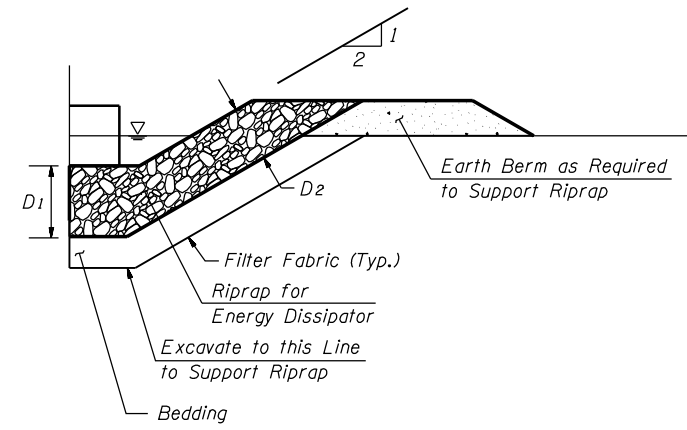


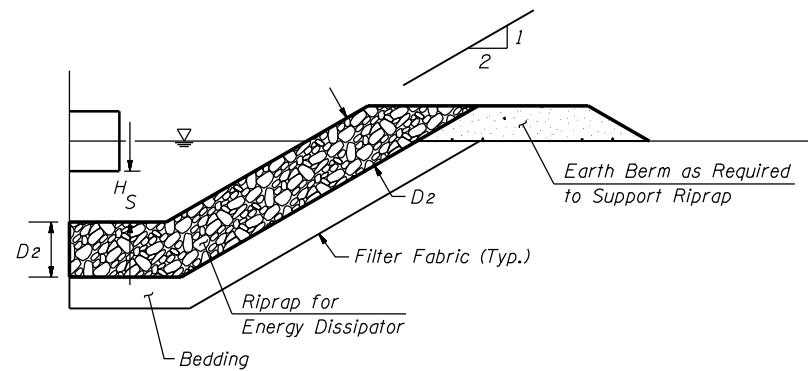
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
315	34-5	HANCOCK	612	292
STA.		TO STA.		
FED. ROAD DIST. No.		ILLINOIS FED. AID PROJECT		



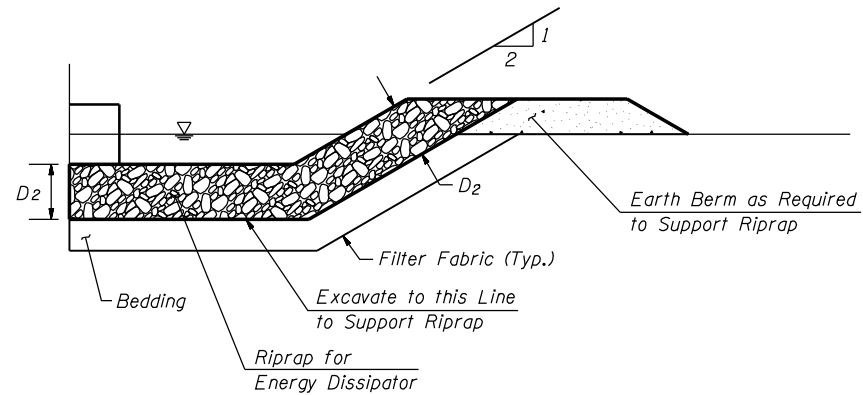
SECTION A-A



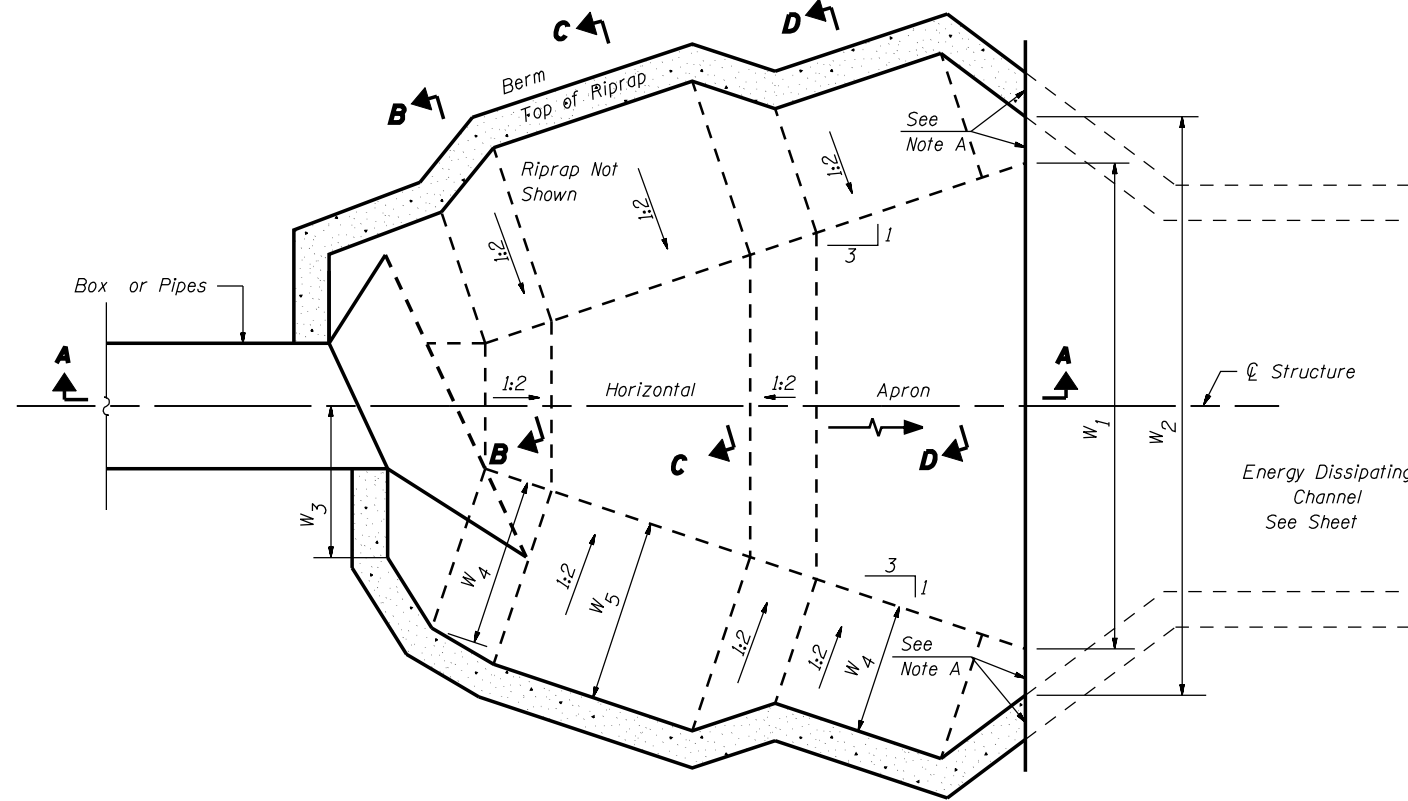
SECTION B-B



SECTION C-C



SECTION D-D



PLAN

NOTE A:
Warp Basin to conform to Natural Stream Channel.
Top of Riprap in Floor of Basin should be at the Same Elevation or Lower than Natural Channel Bottom at End of Apron.

NOTE:
All Slope Ratios are Expressed as Units of Vertical Displacement to Units of Horizontal Displacement (V:H)

STRUCTURE SIZE	STATION	L _B	L _D	L _P	L _A	W ₀	W ₁	W ₂	W ₃	W ₄	W ₅	H _S	H _B	D ₁	D ₂	D ₃	RIPRAP Size	VOLUME Cu. Yd.	RIPRAP Ton
		ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	in.		
3 - 60" PIPES	1247+00, RT	11.0	4.6	13.7	11.4	30.0	52.9	66.9	18.7	11.0	15.6	2.3	5.5	3.2	2.4	8	RR 5	236.8	414.4
2 - 60" PIPES	1253+60, RT	7.0	7.2	21.5	18.0	18.0	53.9	59.9	11.3	7.0	14.2	3.6	3.5	3.2	2.4	8	RR 5	292.9	512.6
6' X 6' BOX	1268+63, RT	6.6	7.8	23.0	19.3	6.0	44.6	49.8	5.2	6.6	14.4	3.9	3.3	3.2	2.4	8	RR 5	254.6	445.6
7' X 8' DBL BOX	1289+80, RT	8.8	6.0	18.3	15.2	14.0	44.3	53.9	9.9	8.8	14.8	3.0	4.4	3.2	2.4	8	RR 5	235.0	411.3
8' X 12' DBL BOX	1318+54, RT	15.0	9.0	27.5	22.7	17.0	62.5	84.5	13.5	15.0	24.0	4.5	7.5	4.5	3.4	12	RR 7	760.5	1330.9

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**RIPRAP ENERGY DISSIPATOR
DETAILS FOR SKEWED BOX CULVERTS**

SCALE: DATE: MARCH 10, 2006
DRAWN BY: RG
CHECKED BY: JAC